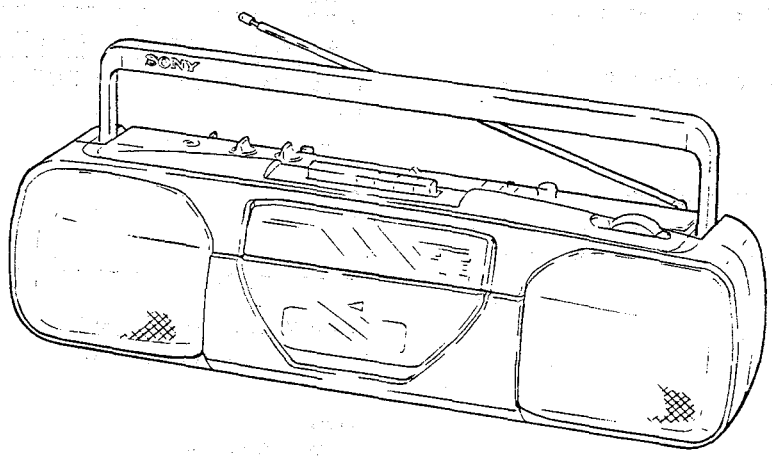
CFS-201L

SERVICE MANUAL

AEP Model
UK Model



SPECIFICATIONS

Frequency range

	FM	MW	LW	SW
AEP,WG,UK model	87.6—107MHz	531—1602kHz	153—281kHz	5.95—18MHz
Italian model	87.5—108MHz	526.5—1606.5kHz	148.5—283.5kHz	

Recording system 4-track 2-channel stereo
Frequency response 80—8,000Hz
Speakers Full-range: 10cm (4 inches) dia. × 2
Power output 2.3W+2.3W (at 10% harmonic distortion) at DC operation
Output PHONES (Stereo minijack), 16-68Ω impedance

Power requirements

AEP, WG, Italian model	220V AC, 50Hz
UK model	240V AC, 50Hz

9V DC, six R20 (size D) batteries

Power consumption 18 W (UK), 14 W (others)

Battery life

Battery	FM recording
Sony SUM-1 (NS)	Approx. 17 hours
Sony AM-1 (N) alkaline	Approx. 30 hours

Dimensions Approx. 480 × 147 × 148 mm (w/h/d) (19 × 5⅞ × 5⅞ inches) incl. projecting parts and controls
Weight Approx. 3.0 kg (6 lb 10 oz), incl. batteries

Design and specifications subject to change without notice.

Model Name Using Similar Mechanism	CFS-210L
Tape Transport Mechanism Type	MF-210-75D (2)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MICROFILM

RADIO CASSETTE-CORDER

SONY®

SECTION 1
GENERAL

SERVICING NOTE

• Repairing printed resistor

Cut both sides of the resistor and solder the carbon resistor having same value in place of printed one of the conductor side.
1/32W carbon resistor is supplied for the replacing part of the printed resistor.

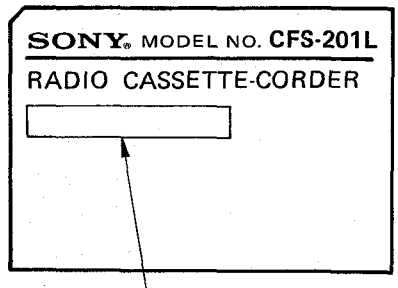
• Note for tape operation buttons

When replacing tape operation buttons, cut them off and attach new parts with locking compound.

MODEL IDENTIFICATION

– Model Number Label –

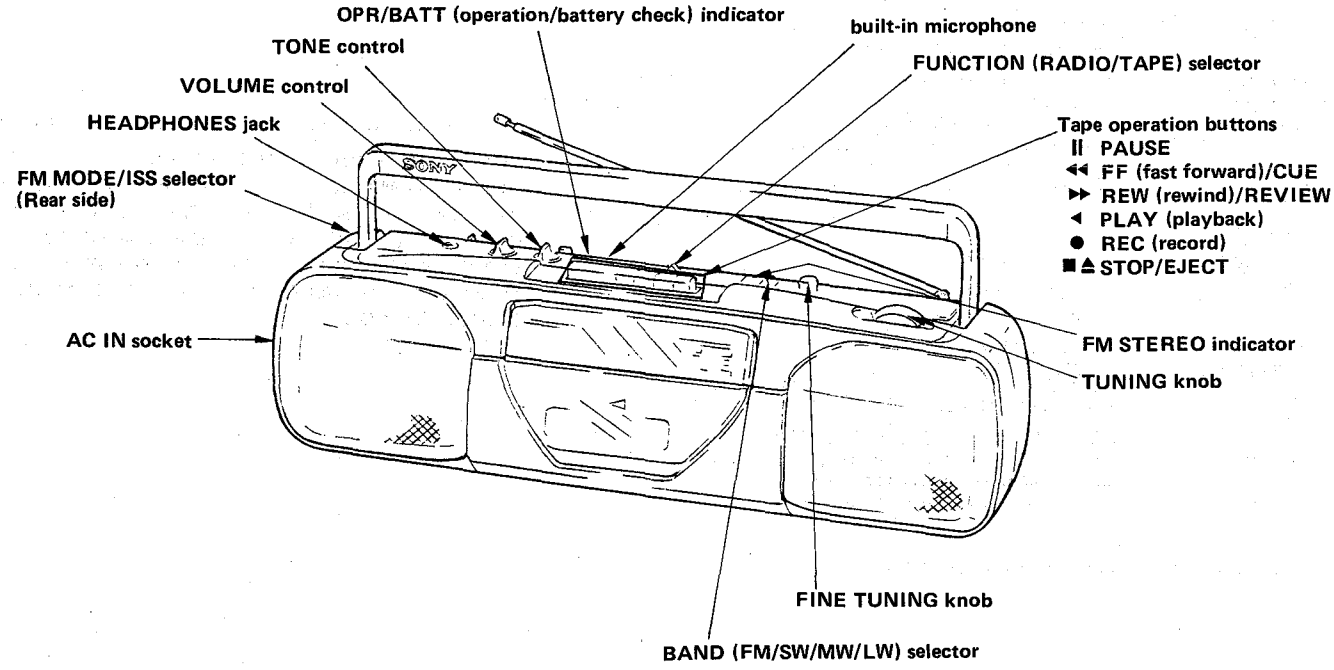
Carved on rear cabinet



AEP, WG, IT model: AC: 220 V ~ 50 Hz 14 W
UK model: AC: 240 V ~ 50 Hz 18 W

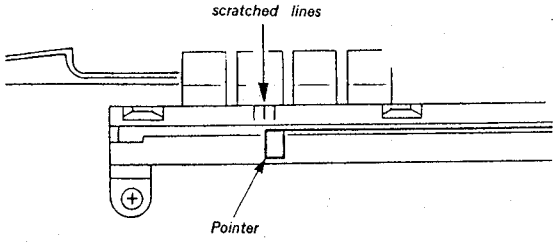
Note:
WG: West Germany
IT: Italian

LOCATION OF CONTROLS



SECTION 2
DIAL POINTER SETTING

1. Turn TUNING knob fully counterclockwise.
2. Set the left end of the pointer to the middle of the scratched lines.



SECTION 3
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:
   record/playback head, erase head, capstan, pinch roller, rubber belts, idlers
2. Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head demagnetizer close to the erase head.)
3. Do not use a magnetized screwdriver for the adjustments.
4. After the adjustments, apply suitable locking compound to the parts adjusted.
5. The adjustments should be performed with the rated power supply voltage unless otherwise noted.
6. Power supply voltage: 9V dc.

Torque Measurement

Torque	Meter Reading	Torque Meter
Forward	22.5–55g·cm (0.31–0.76oz·inch)	CQ-102C
Fast Forward and Rewind	60–120g·cm (0.83–1.67oz·inch)	CQ-201B
Back Tension	2–5g·cm (0.03–0.07oz·inch)	CQ-102C

Tape Tension Measurement

Meter	Meter Reading
CQ-403A	more than 150g (5.29oz)

SECTION 4
ELECTRICAL ADJUSTMENTS

4-1. TAPE RECODER SECTION

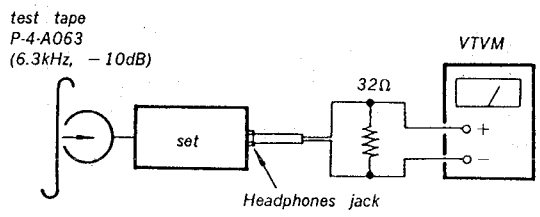
• Test Tape

Type	Signal	Used for
WS-48A	3kHz, 0dB	tape speed adjustment
P-4-A063	6.3kHz, −10dB	head azimuth adjustment

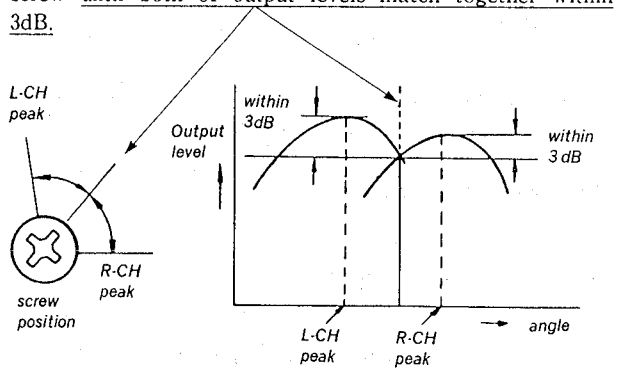
REC/PB Head Azimuth Adjustment

Procedure:

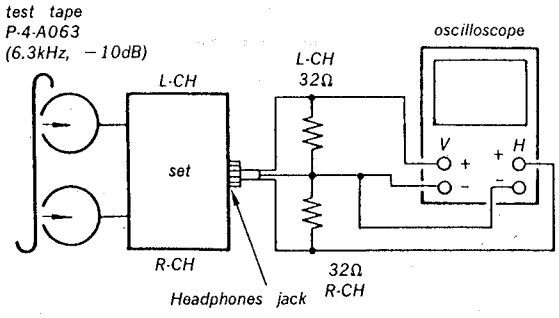
1. Mode: playback

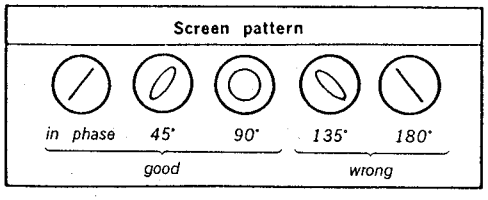


2. Turn the adjustment screw for the maximum output levels. If these levels do not match. turn the adjustment screw until both of output levels match together within 3dB.

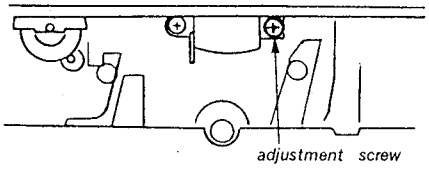


3. Phase Check
   Mode: playback



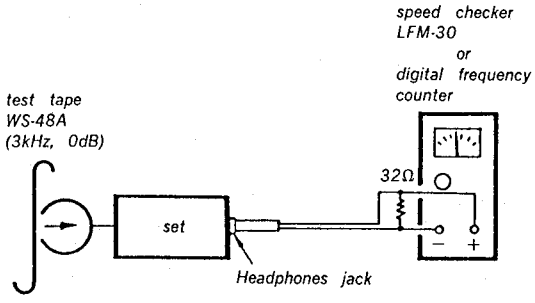


Adjustment Location:



Tape Speed Adjustment

Procedure :
Mode : playback

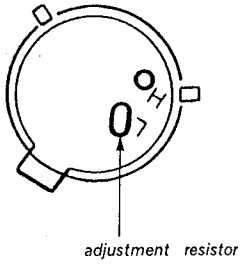


Adjustment Value :

Speed checker	Digital frequency counter
−3.5 to +2.5%	2,895−3,075Hz

Frequency difference between the beginning and the end of the tape should be within 1.5% (45Hz).

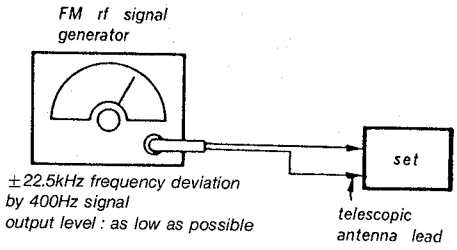
Adjustment Location :



4-2. RADIO SECTION

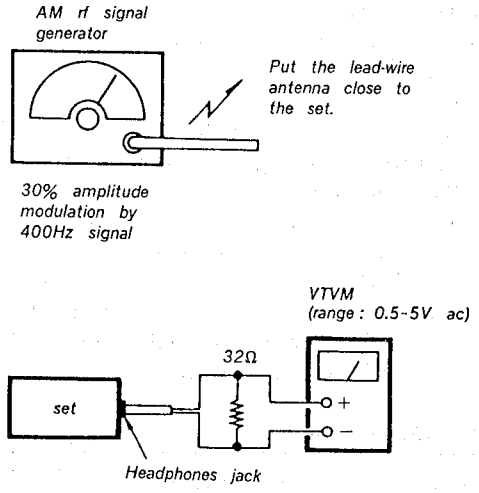
• FM Section

Setting :
FUNCTION switch: RADIO
BAND switch: FM



• AM Section

Setting :
FUNCTION switch: RADIO
BAND switch: MW, LW, SW



• Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM IF ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
T1	455 kHz

MW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L4	520 (516) kHz
CT4	1,680 (1,630) kHz

MW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L3	600 kHz
CT3	1,400 kHz

LW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L8	145 (140) kHz
CT8	295 (293) kHz

LW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L7	160 kHz
CT7	260 kHz

FM FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L2	87.35 MHz
CT2	107.8 (108.3) MHz

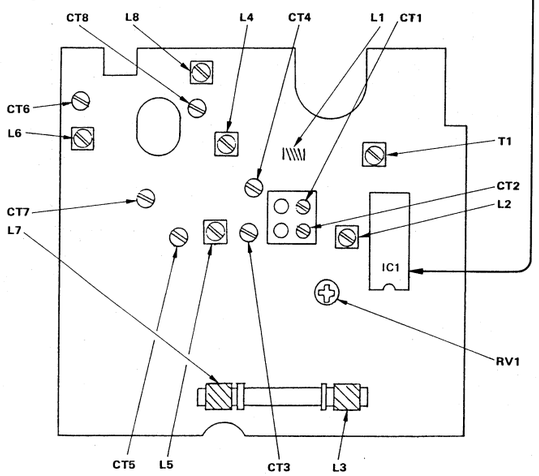
FM TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L1	87.35 MHz
CT1	107.8 (108.3) MHz

SW FREQUENCY COVERAGE ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L6	5.8 MHz
CT6	18.4 MHz

SW TRACKING ADJUSTMENT	
Adjust for a maximum reading on VTVM.	
L5	7 MHz
CT5	14 MHz

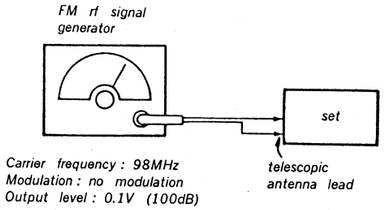
• ( ): Italian model

Adjustment Location: tuner board

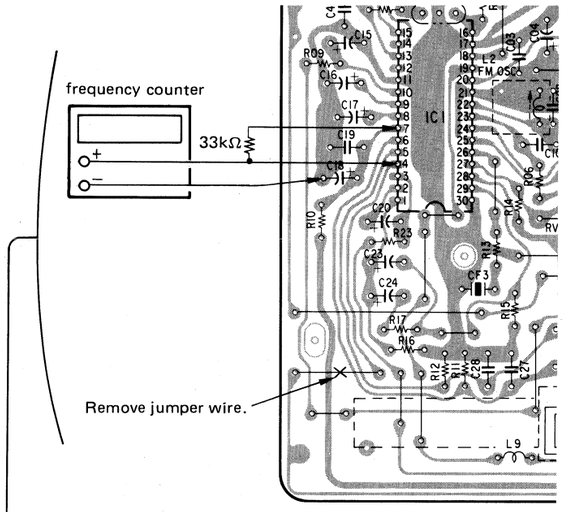


FM VCO Adjustment

A) Regular Method
Procedure :

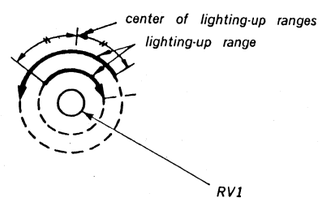


1. Remove jumper wire as shown below.
2. Connect frequency counter to the positions shown below.
3. Tune the set to 98MHz.
4. Adjust RV1 for 76kHz±500Hz reading on the frequency counter.
5. After adjustment, connect jumper wire removed in step 1.



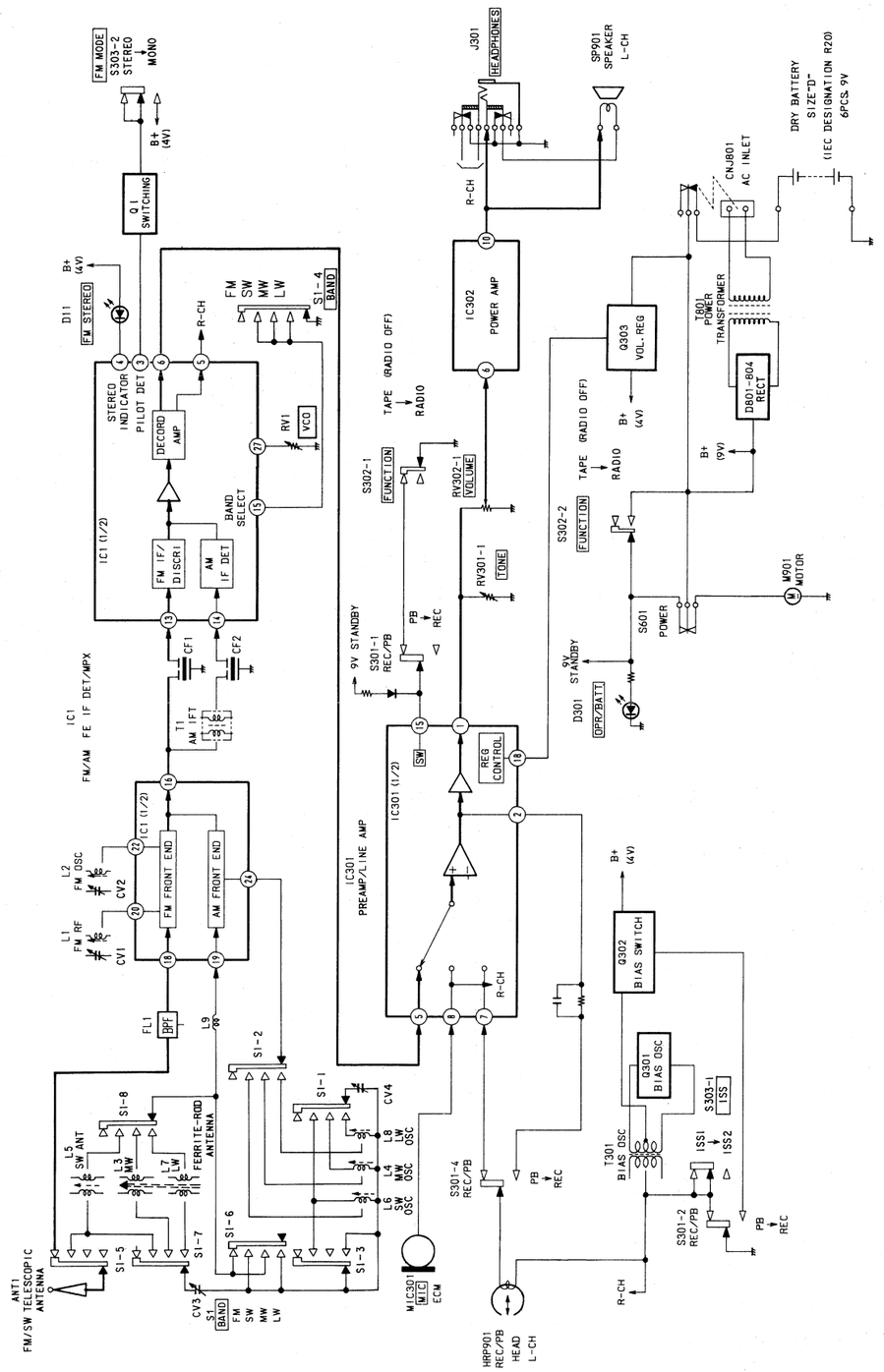
B) Simple Method
Procedure :

1. Tune the set to the FM stereo broadcasting signal.
2. Turn RV1 clockwise or counterclockwise and memorize the lighting-up range of the FM STEREO lamp.
3. Secure RV1 at the center of the lighting-up range of both turns as shown below.



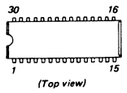
SECTION 5
DIAGRAMS

5-1. BLOCK DIAGRAM

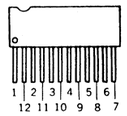


- **Semiconductor Lead Layouts**

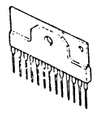
CXA1238S



BA3420AL

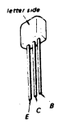


LA4597



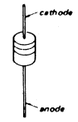
DTA114YS

2SA1175

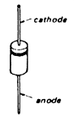


2SC1815-GR
2SC2001

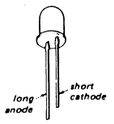
1SS119



1OE2

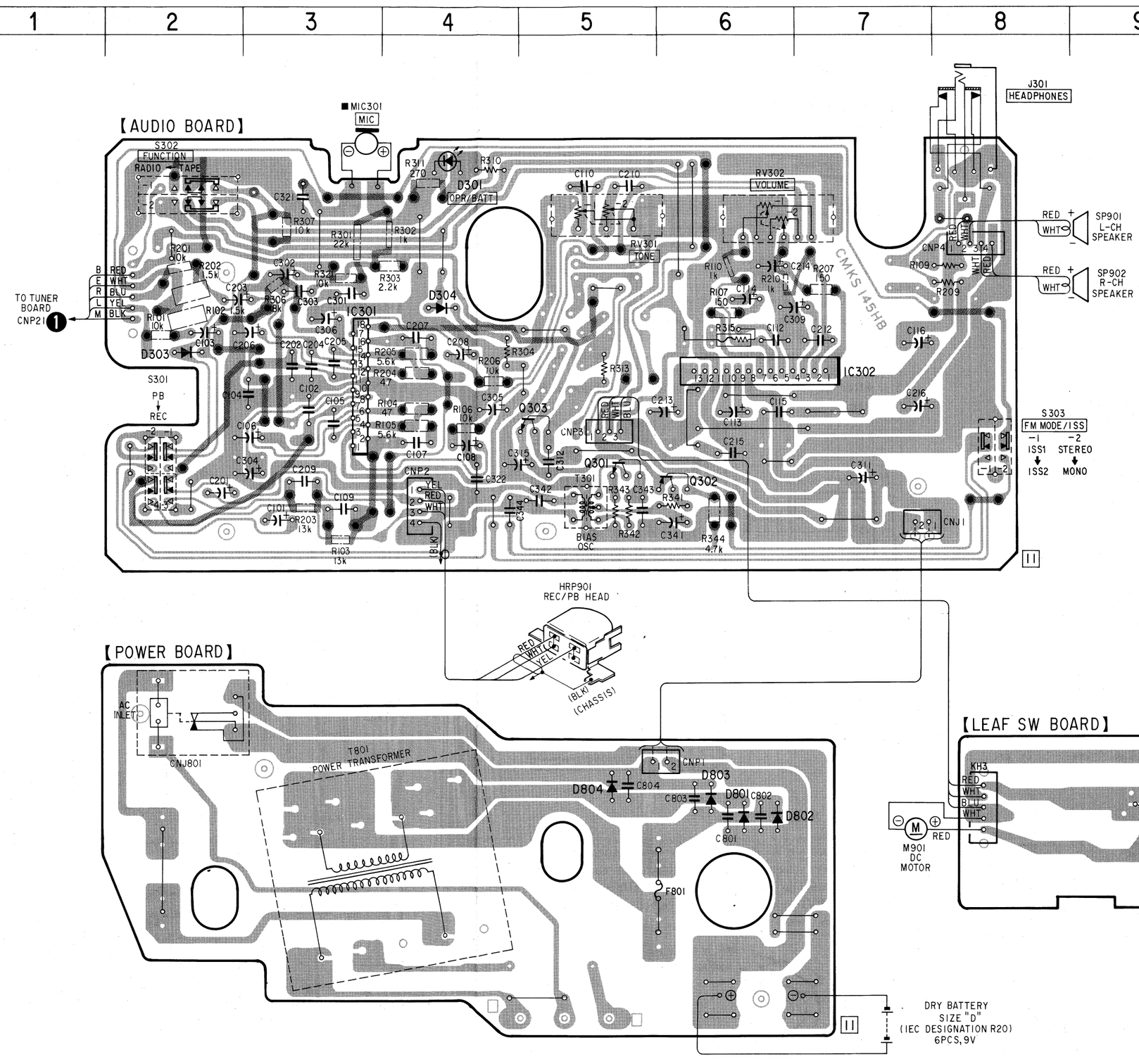


SLR-34VR70F13



- **Semiconductor Location**

Ref.No.	Location
D301	B-4
D303	C-2
D304	B-4
D801	F-6
D802	F-6
D803	F-6
D804	F-5
IC301	C-3
IC302	C-6
Q301	D-6
Q302	D-5
Q303	C-5

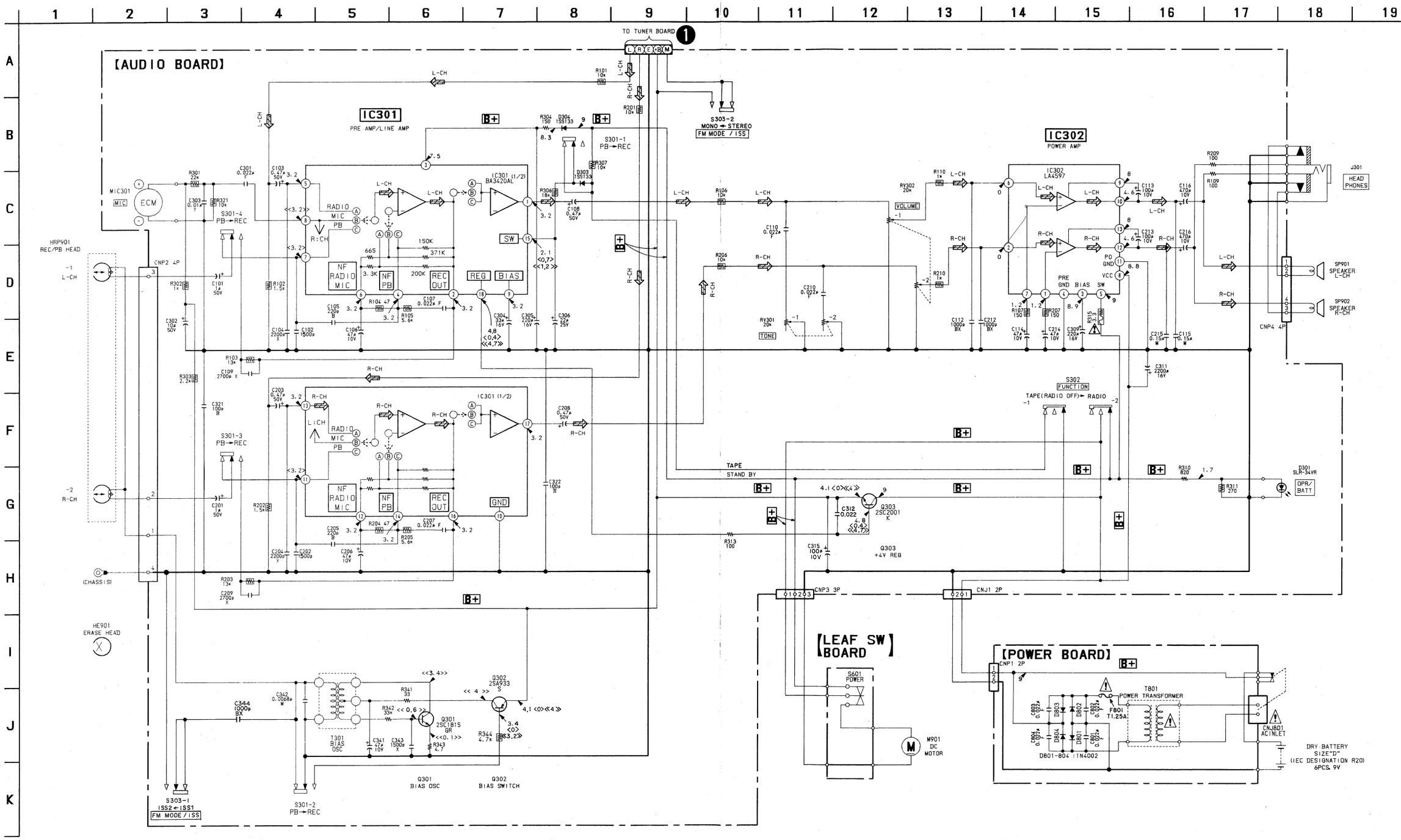


Note:

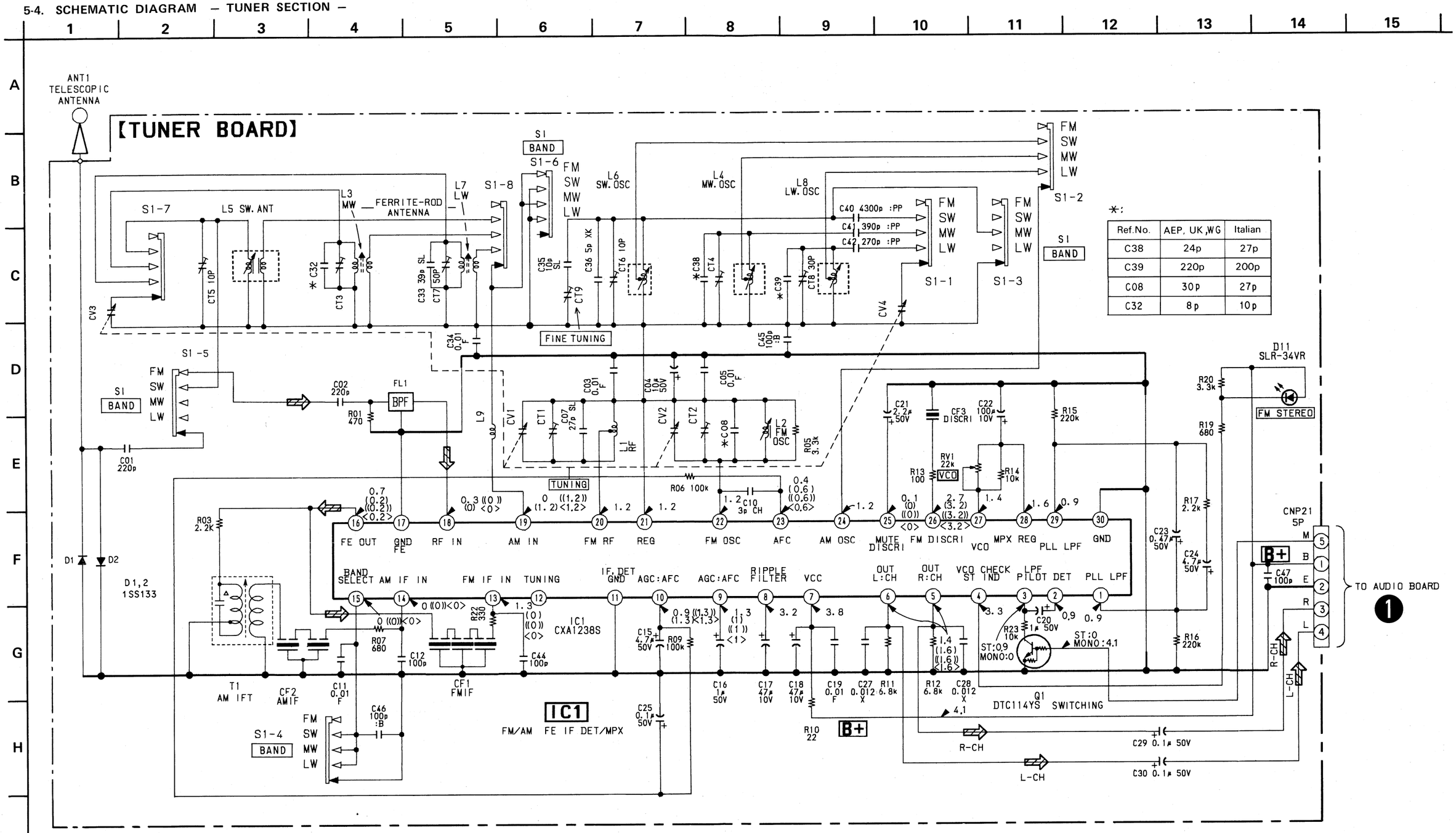
- ○—— : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ▨ : Pattern of the rear side.
- □ : Printed resistor of the rear side.

5-3. SCHEMATIC DIAGRAM — AUDIO SECTION —

● See page 11 for notes.



Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.



*:

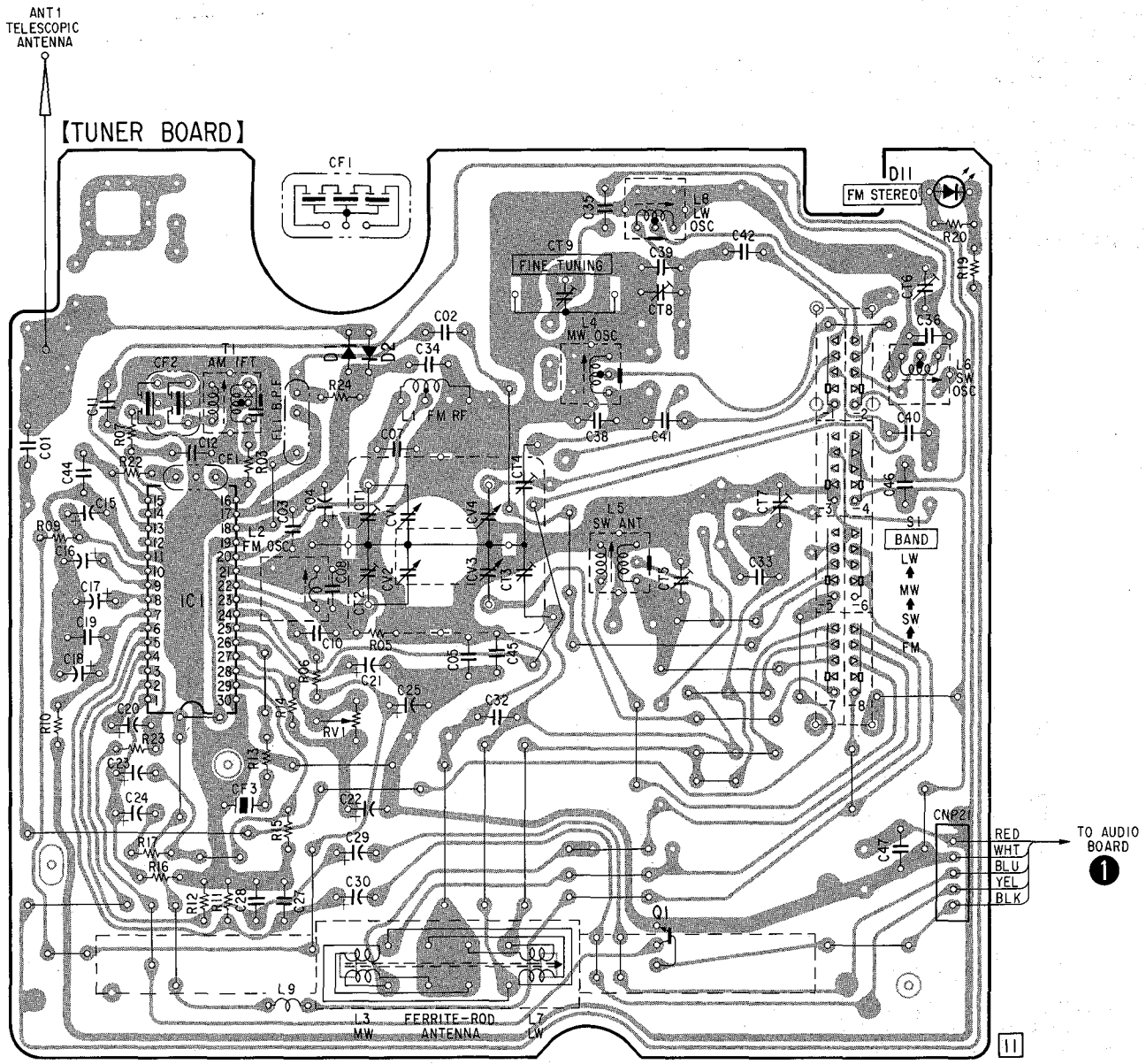
Ref.No.	AEP, UK, WG	Italian
C38	24p	27p
C39	220p	200p
C08	30p	27p
C32	8p	10p

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- △ : internal component.
- : nonflammable resistor.
- : printed resistor.
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
  no mark : FM
  ( ) : MW
  < > : PB
  [ ] : REC
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  : FM

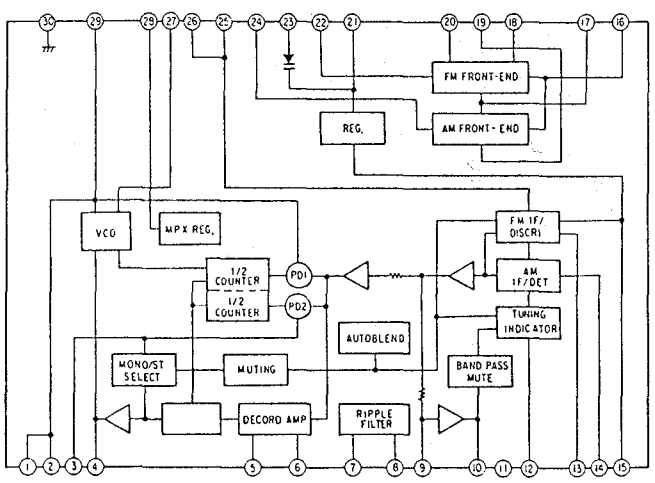
5-5. PRINTED WIRING BOARDS
– TUNER SECTION –

● See page 7 for Semiconductor Lead Layouts.



• IC Block Diagram

IC1 CXA1238S



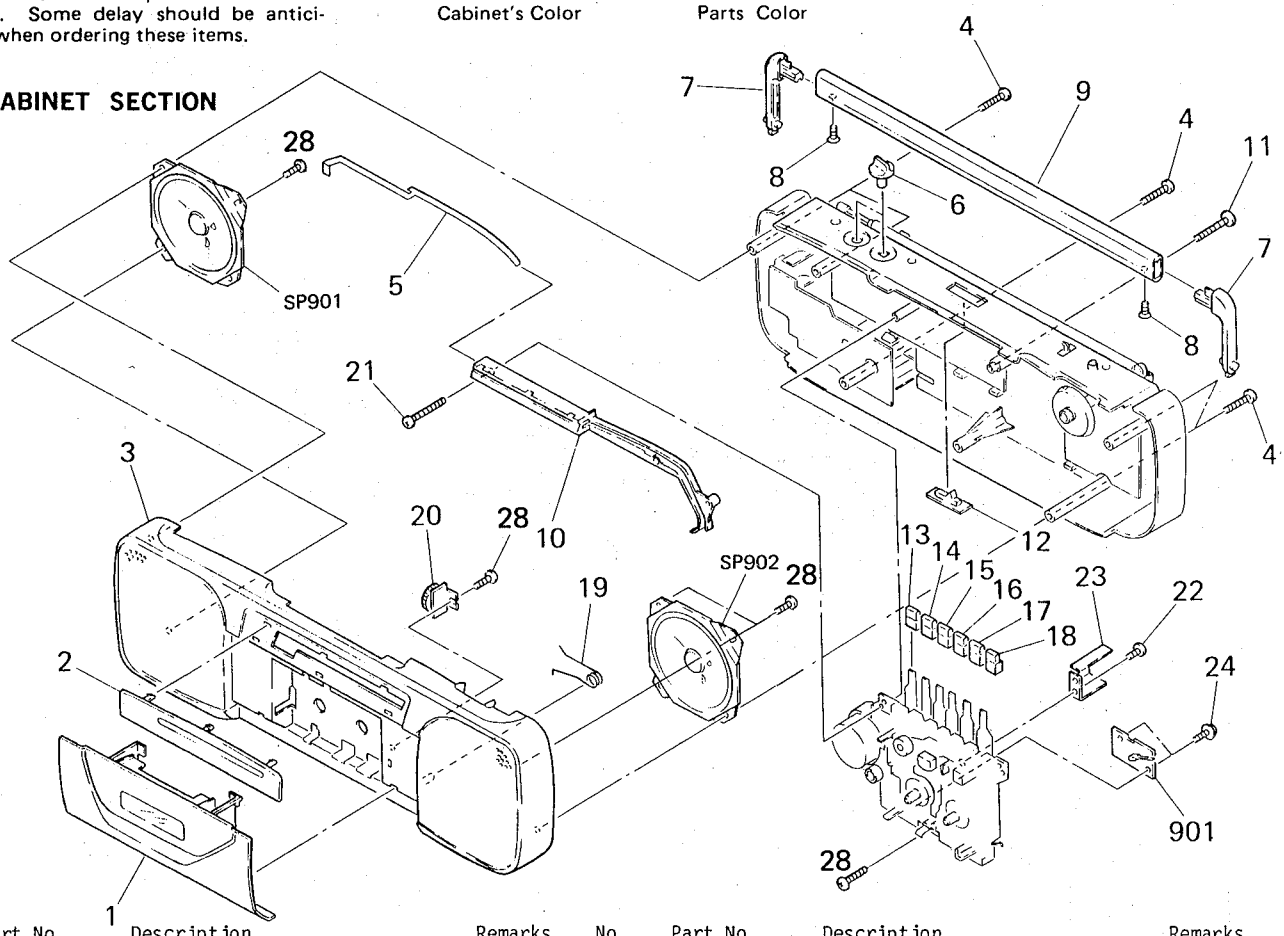
SECTION 6
EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts
  Example:
  (RED) . . . KNOB, BALANCE (WHITE)
  ↑ ↑
  Cabinet's Color Parts Color

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

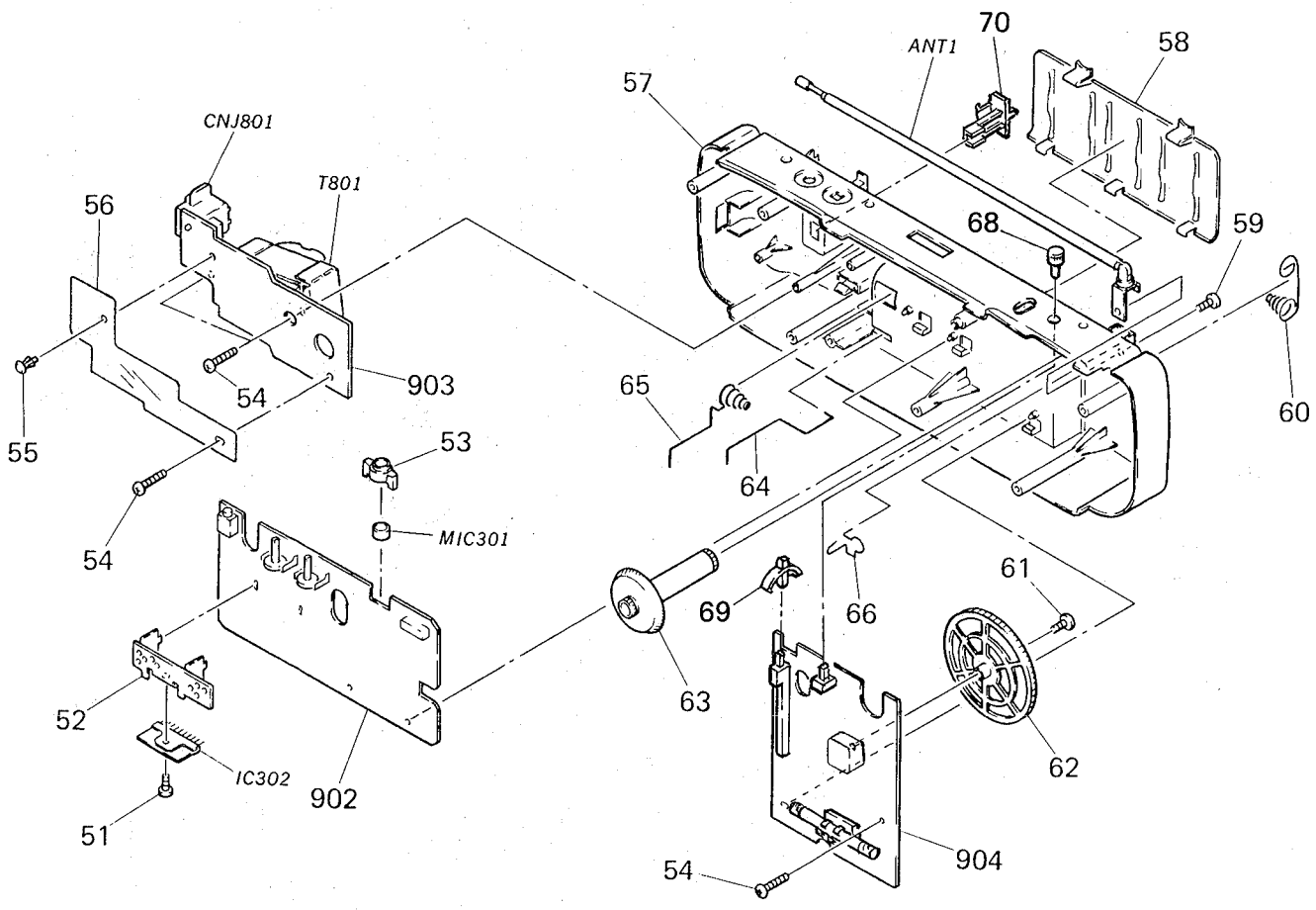
6-1. CABINET SECTION



No.	Part No.	Description	Remarks
1	X-3338-560-1	(BLACK)...HOLDER ASSY, CASSETTE	
	X-3338-561-1	(WHITE)...HOLDER ASSY, CASSETTE	
	X-3338-573-1	(RED).....HOLDER ASSY, CASSETTE	
2	3-351-323-11	PLATE, TRANSPARENT	
3	X-3338-558-1	(BLACK)...CABINET ASSY, FRONT	
	X-3338-559-1	(WHITE)...CABINET ASSY, FRONT	
	X-3338-572-1	(RED).....CABINET ASSY, FRONT	
4	7-685-649-79	SCREW +BVTP 3X14 TYPE2 N-S	
5	3-351-322-01	POINTER	
6	3-351-338-01	(BLACK)...KNOB (VOLUME)	
	3-351-338-11	(WHITE)...KNOB (VOLUME)	
	3-351-338-21	(RED).....KNOB (VOLUME)	
7	3-343-063-01	(BLACK)...PLATE, SIDE, HANDLE	
	3-343-063-21	(WHITE)...PLATE, SIDE, HANDLE	
	3-343-063-31	(RED).....PLATE, SIDE, HANDLE	
8	7-685-248-14	(WHITE)...SCREW +KTP 3X12 TYPE2 NON-SLIT	
	7-685-248-19	(BLACK,RED)...SCREW +KTP 3X12 TYPE2 SLIT	
9	3-351-314-01	(BLACK)...HANDLE	
	3-351-314-11	(WHITE)...HANDLE	
	3-351-314-21	(RED).....HANDLE	
10	*3-351-333-01	CHASSIS (DIAL)	
11	7-685-154-19	SCREW +P 3X35 TYPE2 SLIT	
12	3-351-317-01	(BLACK)...KNOB (FUNCTION)	
	3-351-317-11	(WHITE)...KNOB (FUNCTION)	
	3-351-317-21	(RED).....KNOB (FUNCTION)	

No.	Part No.	Description	Remarks
13	3-351-331-01	BUTTON (PAUSE)	
14	3-351-332-01	BUTTON (FF)	
15	3-351-328-01	BUTTON (REW)	
16	3-351-327-01	BUTTON (PLAY)	
17	3-351-330-01	BUTTON (REC)	
18	3-351-329-01	BUTTON (STOP)	
19	3-351-308-01	SPRING (CASSETTE)	
20	3-351-377-11	DAMPER	
21	7-685-152-19	SCREW +P 3X25 TYPE2 NON-SLIT	
22	7-621-773-86	SCREW +BVTT 2.6X4 (S)	
23	*3-351-316-01	LEVER (REC7)	
24	7-687-233-11	SCREW (+ PTPWH) (2.6X6)	
28	7-685-648-79	SCREW +BVTP 3X12 TYPE 2 N-S	
901	*1-629-925-11	PC BOARD, LEAF SW	
SP901	1-503-492-11	SPEAKER	
SP902	1-503-492-11	SPEAKER	

6-2. BOARDS, CABINET (REAR) SECTION

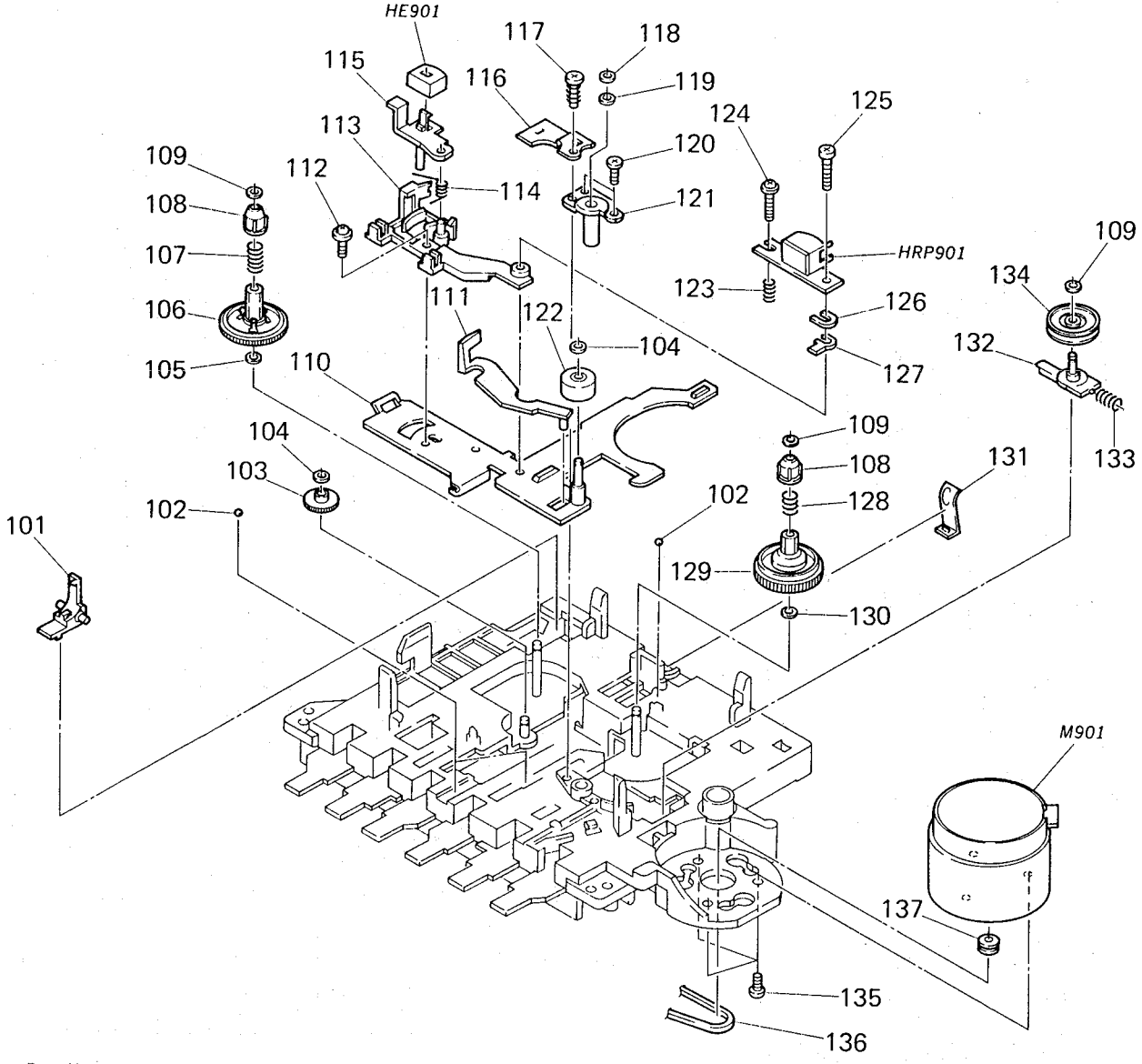


No.	Part No.	Description	Remarks
51	7-685-870-01	SCREW +BVTT 3X5 (S)	
52	*3-351-311-01	HEAT SINK	
53	3-321-122-01	CUSHION, MICROPHONE	
54	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
55	4-812-134-00	RIVET NYLON, 3.5	
56	*3-351-307-01	SHEET, INSULATING	
57	3-351-335-41	(AEP,WG,IT:BLACK)...CABINET (REAR)	
	3-351-335-51	(AEP,WG,IT:WHITE)...CABINET (REAR)	
	3-351-335-61	(AEP,WG,IT:RED).....CABINET (REAR)	
	3-351-335-71	(UK:BLACK).....CABINET (REAR)	
	3-351-335-81	(UK:WHITE).....CABINET (REAR)	
	3-351-335-91	(UK:RED).....CABINET (REAR)	
58	3-343-064-01	(BLACK)...LID, BATTERY CASE	
	3-343-064-11	(WHITE)...LID, BATTERY CASE	
	3-343-064-21	(RED).....LID, BATTERY CASE	
59	7-682-548-09	SCREW +B 3X8	
60	3-351-387-01	SPRING COIL BATTERY (+,-)	
61	7-621-770-67	SCREW +P 2.6X6	
62	3-338-505-01	DRUM, TUNING CAPACITOR	
63	3-351-321-01	KNOB (TUNING)	
64	3-351-315-01	TERMINAL, PLUS	
65	3-351-320-01	SPRING (MINUS)	
66	3-351-318-01	TERMINAL, ANTENNA	
67	*3-890-726-00	PLATE (C), SHIELD	

No.	Part No.	Description	Remarks
68	3-338-501-31	(BLACK)...KNOB (FINE TUNING)	
	3-338-501-41	(WHITE)...KNOB (FINE TUNING)	
	3-338-501-51	(RED).....KNOB (FINE TUNING)	
69	3-343-062-01	(BLACK)...KNOB (BAND)	
	3-343-062-11	(WHITE)...KNOB (BAND)	
	3-343-062-21	(RED).....KNOB (BAND)	
70	3-351-313-01	(BLACK)...KNOB (FM MODE/ISS)	
	3-351-313-11	(WHITE)...KNOB (FM MODE/ISS)	
	3-351-313-21	(RED).....KNOB (FM MODE/ISS)	
902	*A-3270-604-A	PC BOARD ASSY, AUDIO	
903	*1-629-928-11	PC BOARD, POWER	
904	*A-3266-532-A	(AEP,UK,WG)...MOUNTED PCB, TUNER	
	*A-3266-533-A	(IT).....MOUNTED PCB, TUNER	
905	1-533-217-11	HOLDER, FUSE	
ANT1	1-501-375-11	ANTENNA, TELESCOPIC	
⚠CNJ801	1-526-838-11	INLET, AC 2P	
IC302	8-759-820-22	IC LA4597	
MIC301	8-814-186-00	MICROPHONE, ELECTRET CONDENSER (MIC)	
T801	⚠1-448-760-21	(UK).....TRANSFORMER, POWER	
T801	⚠1-448-761-21	(AEP,WG,IT)...TRANSFORMER, POWER	

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

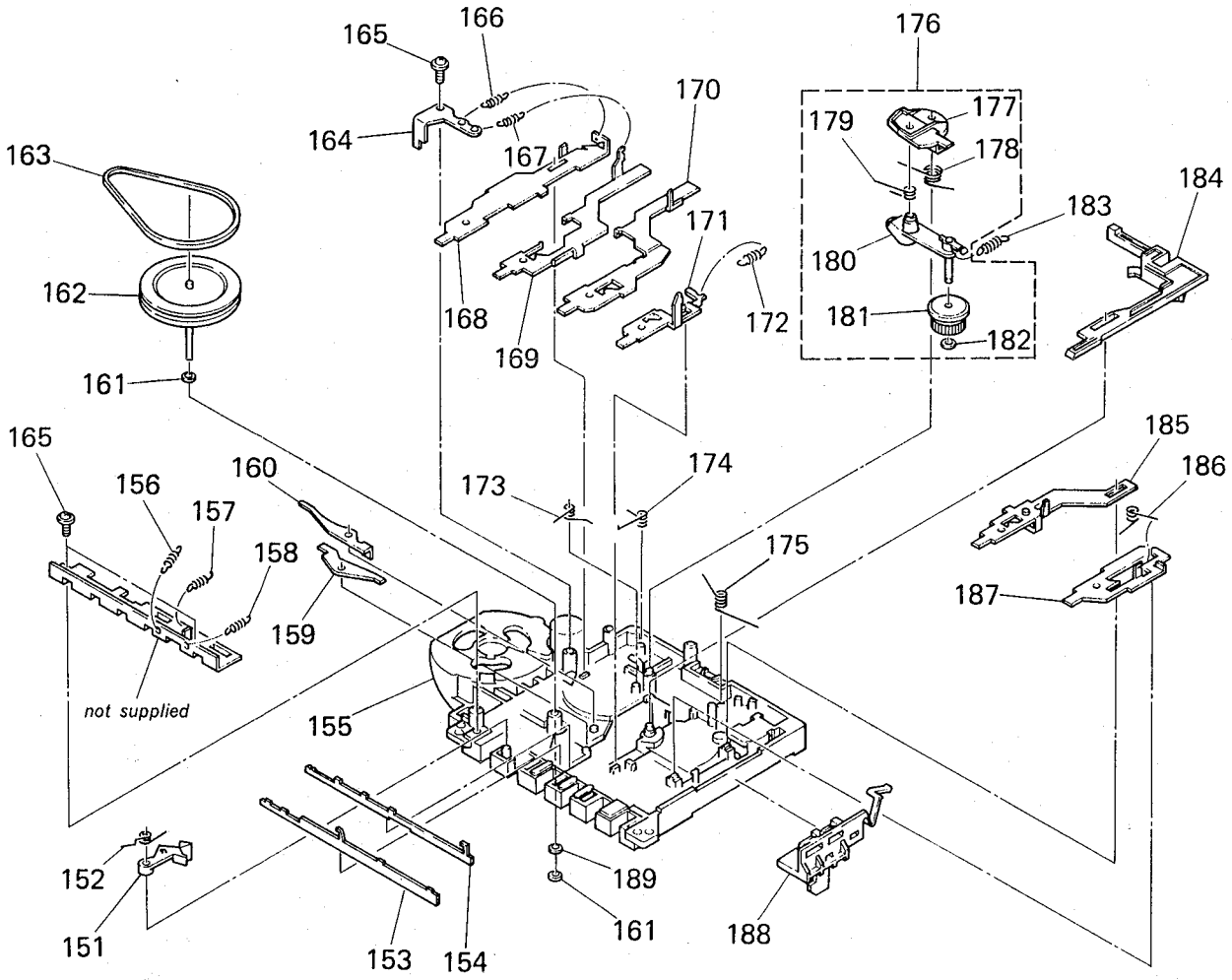
6-3. MECHANISM SECTION (1) (MF-210-75D (2))



Ref.No	Part No.	Description	Remarks
101	3-313-357-00	CLAW, REC PREVENTION	
102	7-671-112-11	BALL, STEEL	
103	3-558-620-11	GEAR, REWIND	
104	3-307-948-01	WASHER, NYLON	
105	3-322-659-01	WASHER (A)	
106	3-313-305-00	TABLE, REEL, SUPPLY	
107	3-313-344-00	SPRING, COMPRESSION	
108	3-313-333-00	CLAW, REEL	
109	3-558-708-01	WASHER, STOPPER	
110	X-3313-311-1	CHASSIS ASSY	
111	3-313-316-00	LEVER, SHUT-OFF DETECTION	
112	7-621-255-35	SCREW (2MMX5), + PWH	
113	3-334-717-01	BRACKET (M), HEAD	
114	3-313-339-00	SPRING	
115	3-313-361-00	ARM, ERASE HEAD	
116	*3-332-309-01	SPRING (B)	
117	7-685-134-19	SCREW (B2.6), TAPPING	
118	3-307-948-41	WASHER, NYLON	
119	3-701-438-11	WASHER, 2.5	
120	3-318-203-71	SCREW (B1.7X5), TAPPING	
121	X-3319-945-1	BEARING ASSY, CAPSTAN	
122	3-703-597-41	PINCH ROLLER, STANDARD	
123	3-313-340-00	SPRING, COMPRESSION	

Ref.No	Part No.	Description	Remarks
124	7-621-255-55	SCREW, LOCK	
125	7-621-772-40	SCREW +B 2X8	
126	3-578-138-01	SHIM	
	3-578-138-11	SHIM	
	3-578-138-21	SHIM	
127	3-331-108-01	LUG (T), SHIM	
	3-331-108-11	LUG (T), SHIM	
	3-331-108-21	LUG (T), SHIM	
	3-331-108-31	LUG (T), SHIM	
	3-331-108-41	LUG (T), SHIM	
128	3-313-345-00	SPRING, COMPRESSION	
129	A-3130-031-A	TABLE ASSY, REEL, TAKE-UP	
130	3-701-437-21	WASHER	
131	3-313-902-11	SPRING	
132	X-3313-301-0	BRACKET ASSY, T PULLEY	
133	3-573-464-00	SPRING, COMPRESSION	
134	X-3313-307-0	PULLEY ASSY, FWD	
135	7-621-770-87	SCREW +P 2.6X5	
136	3-313-335-00	BELT, CAPSTAN	
137	X-3313-308-1	PULLEY (C), MOTOR	
HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)	
HRP901	1-543-283-11	HEAD, MAGNETIC (REC/PB)	
M901	1-541-624-11	MOTOR, DC	

6-4. MECHANISM SECTION (2) (MF-210-75D (2))



Ref.No	Part No.	Description	Remarks
151	3-313-322-02	LEVER (A), S.OFF	
152	3-313-323-00	SPRING	
153	*3-313-351-16	PLATE (A), LOCK	
154	*3-313-352-11	PLATE (B), LOCK	
155	A-3102-092-A	CHASSIS ASSY, MECHANICAL	
156	3-313-369-00	SPRING, TENSION	
157	3-313-343-00	SPRING, TENSION	
158	3-322-529-01	SPRING, TENSION	
159	*3-313-321-00	LEVER, PREVENTION, RFR	
160	*3-313-320-00	LEVER, RCP	
161	3-701-438-11	WASHER, 2.5	
162	X-3327-909-2	FLYWHEEL (G) ASSY	
163	3-313-335-00	BELT, CAPSTAN	
164	*3-332-310-01	HOOK, SPRING	
165	7-687-233-11	SCREW (+ PTPWH) (2.6X6)	
166	3-313-349-00	SPRING, TENSION	
167	3-313-348-00	SPRING, TENSION	
168	*3-313-381-01	LEVER (B), PAUSE BUTTON	
169	*3-313-353-00	LEVER, FF BUTTON	
170	*3-313-354-00	LEVER, REW BUTTON	

Ref.No	Part No.	Description	Remarks
171	*3-313-326-00	LEVER, FWD BUTTON	
172	3-324-222-01	SPRING (HIGH TENSION), TENSION	
173	3-313-338-00	SPRING	
174	3-313-378-01	SPRING (A)	
175	3-313-327-00	SPRING	
176	A-3136-041-B	IDLER COMPLETE ASSY, FR	177-182
177	3-313-314-00	LEVER (SI), FR	
178	3-313-315-00	SPRING	
179	3-313-313-00	SPRING	
180	X-3313-304-0	ARM ASSY, REW	
181	X-3313-312-1	IDLER ASSY, FR	
182	3-558-708-01	WASHER, STOPPER	
183	3-313-365-00	SPRING, TENSION	
184	3-313-356-00	BRAKE	
185	*3-313-350-00	LEVER, REC BUTTON	
186	3-313-331-00	SPRING	
187	*3-313-325-00	LEVER, STOP BUTTON	
188	3-313-380-01	CLAW (A), EJECT	
189	3-701-438-01	WASHER	

SECTION 7
ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits, in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS:
MF: μF, PF: μμF.

RESISTORS
- All resistors are in ohms.
- F: nonflammable

COILS
- MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: μ, for example:
UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Ref.No.	Part No.	Description			
901	*1-629-925-11	PC BOARD, LEAF SW			
902	*A-3270-604-A	PC BOARD ASSY, AUDIO			
903	*1-629-928-11	PC BOARD, POWER			
904	*A-3266-532-A	(AEP,UK,WG)...MOUNTED PCB, TUNER			
	*A-3266-533-A	(IT).....MOUNTED PCB, TUNER			
905	1-533-217-11	HOLDER, FUSE			
ANT1	1-501-375-11	ANTENNA, TELESCOPIC			
C01	1-162-286-31	CERAMIC	220PF	10%	50V
C02	1-162-286-31	CERAMIC	220PF	10%	50V
C03	1-164-096-11	CERAMIC	0.01MF		50V
C04	1-123-875-11	ELECT	10MF	20%	50V
C05	1-164-096-11	CERAMIC	0.01MF		50V
C07	1-164-056-11	CERAMIC	27PF	5%	50V
C08	1-102-961-00	(IT)....CERAMIC	27PF	5%	50V
C08	1-102-962-00	(AEP,WG,UK) ...CERAMIC	30PF	5%	50V
C10	1-164-012-11	CERAMIC	3PF	0.25PF	50V
C11	1-164-096-11	CERAMIC	0.01MF		50V
C12	1-162-282-31	CERAMIC	100PF	10%	50V
C15	1-124-927-11	ELECT	4.7MF	20%	50V
C16	1-124-499-11	ELECT	1MF	20%	50V
C17	1-124-446-11	ELECT	47MF	20%	10V
C18	1-124-446-11	ELECT	47MF	20%	10V
C19	1-164-096-11	CERAMIC	0.01MF		50V
C20	1-124-499-11	ELECT	1MF	20%	50V
C21	1-124-925-11	ELECT	2.2MF	20%	50V
C22	1-124-443-00	ELECT	100MF	20%	10V
C23	1-124-902-00	ELECT	0.47MF	20%	50V
C24	1-124-927-11	ELECT	4.7MF	20%	50V
C25	1-124-463-00	ELECT	0.1MF	20%	50V
C27	1-162-840-11	CERAMIC	0.012MF	10%	16V
C28	1-162-840-11	CERAMIC	0.012MF	10%	16V
C29	1-124-463-00	ELECT	0.1MF	20%	50V
C30	1-124-463-00	ELECT	0.1MF	20%	50V
C32	1-102-945-00	(AEP,WG,UK) ...CERAMIC	8PF	0.5PF	50V
C32	1-102-947-00	(IT)....CERAMIC	10PF	0.5PF	50V
C33	1-164-060-11	CERAMIC	39PF	5%	50V
C34	1-164-096-11	CERAMIC	0.01MF		50V
C35	1-164-046-11	CERAMIC	10PF	0.5PF	50V
C36	1-102-998-00	CERAMIC	5PF	0.5PF	50V
C38	1-102-722-00	(IT).....CERAMIC	27PF	5%	50V
C38	1-102-960-00	(AEP,WG,UK)...CERAMIC	24PF	5%	50V

Ref.No.	Part No.	Description			
C39	1-130-048-00	(AEP,WG,UK)...FILM	220PF	5%	50V
C39	1-136-010-00	(IT).....FILM	200PF	5%	50V
C40	1-136-025-91	FILM	0.0043MF	5%	50V
C41	1-130-013-00	FILM	390PF	5%	50V
C42	1-130-011-00	FILM	270PF	5%	50V
C44	1-162-282-31	CERAMIC	100PF	10%	50V
C45	1-162-282-31	CERAMIC	100PF	10%	50V
C46	1-162-282-31	CERAMIC	100PF	10%	50V
C47	1-162-282-31	CERAMIC	100PF	10%	50V
C101	1-124-499-11	ELECT	1MF	20%	50V
C102	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C103	1-124-902-00	ELECT	0.47MF	20%	50V
C104	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C105	1-162-286-31	CERAMIC	220PF	10%	50V
C106	1-124-446-11	ELECT	47MF	20%	10V
C107	1-161-494-00	CERAMIC	0.022MF		25V
C108	1-124-902-00	ELECT	0.47MF	20%	50V
C109	1-162-832-11	CERAMIC	0.0027MF	10%	16V
C110	1-161-494-00	CERAMIC	0.022MF		25V
C112	1-162-294-31	CERAMIC	0.001MF	10%	50V
C113	1-124-443-00	ELECT	100MF	20%	10V
C114	1-124-446-11	ELECT	47MF	20%	10V
C115	1-130-497-00	MYLAR	0.15MF	5%	50V
C116	1-124-472-11	ELECT	470MF	20%	10V
C201	1-124-499-11	ELECT	1MF	20%	50V
C202	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C203	1-124-902-00	ELECT	0.47MF	20%	50V
C204	1-161-375-00	CERAMIC	0.0022MF	30%	16V
C205	1-162-286-31	CERAMIC	220PF	10%	50V
C206	1-124-446-11	ELECT	47MF	20%	10V
C207	1-161-494-00	CERAMIC	0.022MF		25V
C208	1-124-902-00	ELECT	0.47MF	20%	50V
C209	1-162-832-11	CERAMIC	0.0027MF	10%	16V
C210	1-161-494-00	CERAMIC	0.022MF		25V
C212	1-162-294-31	CERAMIC	0.001MF	10%	50V
C213	1-124-443-00	ELECT	100MF	20%	10V
C214	1-124-446-11	ELECT	47MF	20%	10V
C215	1-130-497-00	MYLAR	0.15MF	5%	50V
C216	1-124-472-11	ELECT	470MF	20%	10V
C301	1-161-494-00	CERAMIC	0.022MF		25V
C302	1-123-875-11	ELECT	10MF	20%	50V
C303	1-161-379-00	CERAMIC	0.01MF	30%	16V
C304	1-124-963-11	ELECT	33MF	20%	16V
C305	1-124-120-11	ELECT	220MF	20%	16V

Ref.No.	Part No.	Description			
C306	1-126-233-11	ELECT	22MF	20%	25V
C309	1-124-120-11	ELECT	220MF	20%	16V
C311	1-124-556-11	ELECT	2200MF	20%	16V
C312	1-161-494-00	CERAMIC	0.022MF		25V
C315	1-124-443-00	ELECT	100MF	20%	10V
C321	1-162-282-31	CERAMIC	100PF	10%	50V
C322	1-162-282-31	CERAMIC	100PF	10%	50V
C341	1-124-446-11	ELECT	47MF	20%	10V
C342	1-130-481-00	MYLAR	0.0068MF	5%	50V
C343	1-161-374-11	CERAMIC	0.0015MF	30%	16V
C344	1-162-294-31	CERAMIC	0.001MF	10%	50V
C801	1-101-005-00	CERAMIC	0.022MF		50V
C802	1-101-005-00	CERAMIC	0.022MF		50V
C803	1-101-005-00	CERAMIC	0.022MF		50V
C804	1-101-005-00	CERAMIC	0.022MF		50V
CF1, CF3	1-567-166-00	FILTER, CERAMIC			
CF2	1-567-670-11	FILTER, CERAMIC			
CNJ1	*1-563-307-11	CONNECTOR (SOCKET) 2P			
⚠CNJ801	1-526-838-11	INLET, AC 2P			
CNP1	*1-568-259-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP2	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP3	*1-506-985-11	PIN, CONNECTOR (PC BOARD) 3P			
CNP4	*1-506-986-11	PIN, CONNECTOR (PC BOARD) 4P			
CNP21	*1-506-987-11	PIN, CONNECTOR (PC BOARD) 5P			
CT1-4, CV1-4	1-151-637-11	CAP, VARIABLE			
CT5	1-141-290-41	CAP, VAR FILM TRIMMER			
CT6	1-141-290-41	CAP, VAR FILM TRIMMER			
CT7	1-141-260-00	TRIMMER, CERAMIC			
CT8	1-141-245-00	TRIMMER, CERAMIC			
CT9	1-141-328-11	CAP, TRIMMER			
D1	8-719-911-19	DIODE 1SS119			
D2	8-719-911-19	DIODE 1SS119			
D11	1-807-738-11	DIODE SLR-34VR70F130 (LED)			
D301	1-807-738-11	DIODE SLR-34VR70F130 (LED)			
D303	8-719-911-19	DIODE 1SS119			
D304	8-719-911-19	DIODE 1SS119			
D801	8-719-200-02	DIODE 10E-2			
D802	8-719-200-02	DIODE 10E-2			
D803	8-719-200-02	DIODE 10E-2			
D804	8-719-200-02	DIODE 10E-2			
F801	⚠1-532-285-00	FUSE, TIME-LAG 1.25A			

Ref.No.	Part No.	Description			
FL1	1-236-022-11	FILTER, BAND PASS			
HE901	1-543-525-11	HEAD, MAGNETIC (ERASE)			
HRP901	1-543-283-11	HEAD, MAGNETIC (REC/PB)			
IC1	8-752-035-68	IC CXA1238S			
IC301	8-759-978-54	IC BA3420AL			
IC302	8-759-820-22	IC LA4597			
J301	1-566-891-11	JACK			
L1	*1-422-180-11	COIL, AIR-CORE (RF)			
L2	1-459-815-11	COIL (WITH CORE)			
L3, L7	1-402-417-11	ANTENNA, FERRITE-ROD (LW/MW)			
L4	1-406-253-11	COIL (OSC)			
L5	1-402-312-11	COIL (ANT)			
L6	1-406-280-11	COIL (OSC)			
L8	1-406-252-11	COIL (OSC)			
L9	*1-409-293-00	COIL, AIR CORE			
M901	1-541-624-11	MOTOR, DC			
MIC301	8-814-186-00	MICROPHONE, ELECTRET CONDENSER (MIC)			
Q1	8-729-904-36	TRANSISTOR DTC114YS			
Q301	8-729-281-53	TRANSISTOR 2SC1815GR			
Q302	8-729-117-54	TRANSISTOR 2SA1175			
Q303	8-729-100-13	TRANSISTOR 2SC2001			
R03	1-249-421-11	CARBON	2.2K	5%	1/4W
R05	1-249-423-11	CARBON	3.3K	5%	1/4W
R06	1-249-441-11	CARBON	100K	5%	1/4W
R07	1-249-415-11	CARBON	680	5%	1/4W
R09	1-249-441-11	CARBON	100K	5%	1/4W
R10	1-249-397-11	CARBON	22	5%	1/4W
R11	1-249-427-11	CARBON	6.8K	5%	1/4W
R12	1-249-427-11	CARBON	6.8K	5%	1/4W
R13	1-249-405-11	CARBON	100	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W
R15	1-247-887-00	CARBON	220K	5%	1/4W
R16	1-247-887-00	CARBON	220K	5%	1/4W
R17	1-249-421-11	CARBON	2.2K	5%	1/4W
R19	1-249-415-11	CARBON	680	5%	1/4W
R20	1-249-423-11	CARBON	3.3K	5%	1/4W
R22	1-249-411-11	CARBON	330	5%	1/4W
R23	1-249-429-11	CARBON	10K	5%	1/4W
R24	1-249-413-11	CARBON	470	5%	1/4W
R101	1-249-429-11	CARBON	10K	5%	1/4W

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description				
R102	1-249-419-11	CARBON	1.5K	5%	1/4W	
R103	1-215-448-00	CARBON	13K	5%	1/4W	
R104	1-249-401-11	CARBON	47	5%	1/4W	
R105	1-249-426-11	CARBON	5.6K	5%	1/4W	
R106	1-249-429-11	CARBON	10K	5%	1/4W	
R107	1-249-407-11	CARBON	150	5%	1/4W	
R109	1-249-405-11	CARBON	100	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R201	1-249-429-11	CARBON	10K	5%	1/4W	
R202	1-249-419-11	CARBON	1.5K	5%	1/4W	
R203	1-215-448-00	CARBON	13K	5%	1/4W	
R204	1-249-401-11	CARBON	47	5%	1/4W	
R205	1-249-426-11	CARBON	5.6K	5%	1/4W	
R206	1-249-429-11	CARBON	10K	5%	1/4W	
R207	1-249-407-11	CARBON	150	5%	1/4W	
R209	1-249-405-11	CARBON	100	5%	1/4W	
R210	1-249-417-11	CARBON	1K	5%	1/4W	
R301	1-249-433-11	CARBON	22K	5%	1/4W	
R302	1-249-417-11	CARBON	1K	5%	1/4W	
R303	1-249-421-11	CARBON	2.2K	5%	1/4W	
R304	1-249-407-11	CARBON	150	5%	1/4W	
R306	1-249-432-11	CARBON	18K	5%	1/4W	
R307	1-249-429-11	CARBON	10K	5%	1/4W	
R310	1-249-416-11	CARBON	820	5%	1/4W	
R311	1-249-410-11	CARBON	270	5%	1/4W	
R313	1-249-405-11	CARBON	100	5%	1/4W	
R315	⚠1-217-640-11	FUSIBLE	3.3	5%	1/4W	F
R321	1-249-429-11	CARBON	10K	5%	1/4W	
R341	1-249-399-11	CARBON	33	5%	1/4W	
R342	1-249-435-11	CARBON	33K	5%	1/4W	
R343	1-249-389-11	CARBON	4.7	5%	1/4W	
R344	1-249-425-11	CARBON	4.7K	5%	1/4W	
RV1	1-228-995-00	RES, ADJ, CARBON 22K				
RV301	1-238-431-11	RES, VAR, CARBON 20K/20K (TONE)				
RV302	1-238-430-11	RES, VAR, CARBON 20K/20K (VOLUME)				
S1	1-571-147-11	SWITCH, LEVER SLIDE (BAND)				
S301	1-571-472-11	SWITCH, SLIDE (REC/PB)				
S302	1-571-547-11	SWITCH, SLIDE (FUNCTION)				
S303	1-554-222-00	SWITCH, SLIDE (FM MODE/ISS)				
S601	1-554-495-00	SWITCH, LEAF (MD POWER SUPPLY)				
SP901	1-503-492-11	SPEAKER				
SP902	1-503-492-11	SPEAKER				
T1	1-404-355-00	TRANSFORMER, IF				
T301	1-433-268-00	TRANSFORMER, BIAS OSCILLATOR				

Ref.No.	Part No.	Description
T801	⚠1-448-760-21	(UK).....TRANSFORMER, POWER
T801	⚠1-448-761-21	(AEP,WG,IT)...TRANSFORMER, POWER

ACCESSORY & PACKING MATERIAL

⚠1-555-234-00	(AEP,WG,IT)...CORD, POWER
⚠1-558-032-11	(UK).....CORD, POWER
*3-351-378-01	CUSHION (LEFT) (RIGHT)
*3-351-374-01	INDIVIDUAL CARTON
3-750-187-11	(AEP,IT,UK)...MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH,PORTUGUESE)
3-750-187-41	(AEP,WG,IT)...MANUAL, INSTRUCTION (GERMAN,DUTCH,SWEDISH,ITALIAN)

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

9-953-679-11

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Audio Group

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